November 2, 1993

EAGLE
ENVIRONMENTAL
HEALTH, INC.

Mr. Leo P. Dreyer
Shook, Hardy & Bacon
One Kansas City Place
1200 Main Street
Kansas City, Missouri 64105

Project No. 0999.0004
Proposal No. 667
Indoor Air Quality Building Study

Dear Mr. Dreyer:

Eagle Environmental Health, Inc. (Eagle), is pleased to present this proposal for professional services regarding an indoor air quality building study in support of a Shook, Hardy & Bacon client. This proposal has been divided into the following five sections to allow for adequate discussion of the topics:

I Introduction

II Phase I - Pilot Study
- A. Technical Approach
- B. Timeline
- C. Budget

III Phase II - Ten-Building Study
- A. Technical Approach
- B. Timeline
- C. Budget

IV Phase III - Smoking Lounge Design
- A. Technical Approach
- B. Timeline
- C. Budget

V Project Team

VI Terms and Conditions

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I. INTRODUCTION

Shook, Hardy & Bacon is requesting proposals for indoor air quality building investigations for the following purposes:

- to evaluate, through sampling data, the concentrations of tobacco smoke by-products in the air in buildings where smoking is permitted;
- to identify the smoking policy for those buildings where sampling is conducted;
- to review the heating, ventilation, air-conditioning (HVAC) system by evaluating selected parameters set forth in "Ventilation for Acceptable Indoor Air Quality," American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) 82-1989; and
- to design three smoking lounge packages for certain buildings.

These four major goals will be achieved through discrete phases of work:

- a pilot study of two office buildings where airborne concentrations of certain parameters will be measured and the HVAC system examined;
- a building study whereby ten office buildings are studied including measurements of airborne concentrations of certain parameters and evaluation of the HVAC system;
- a smoking lounge study whereby a lounge configuration is designed and building and operational costs estimated, but no construction is undertaken; and
- reports on each of these phases.

For ease of discussion and mutual understanding, the scope of this project has been subdivided into phases to assure adequate definition of the services to be provided.

Prior to conducting each phase of this project, Eagle will meet with a representative of Shook, Hardy & Bacon to conduct project planning and scheduling. (The planning and scheduling may be done via telephone.) Shook, Hardy & Bacon will provide a contact at each building to be evaluated with whom Eagle will arrange all sampling. The contact will inform all occupants of the upcoming study well in advance of the actual field work in

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order to assure smooth employee relations. The contact will arrange for Eagle to have blueprints of the building HVAC system (as available) upon Eagle's arrival at the building. The facility engineer must be available for a telephone conference with the Eagle project manager at least two weeks before the field work to arrange for ladders, access, etc., and discuss HVAC operation. The facility engineer should be able to explain his use of outside makeup air in building operation.

II. PHASE I - PILOT STUDY

A. TECHNICAL APPROACH

The first phase of the project is a pilot study. The purpose of the pilot study is to identify problems--technical, procedural, employee relations-related, etc.--in advance of the extensive ten-building study. Work will be conducted Monday through Friday from 8:00 a.m. to 5:00 p.m., the period of building occupancy.

Two buildings will be investigated during the pilot study. The investigations will include:

1. Review of Heating, Ventilation and Air-Conditioning System

   The HVAC system will be evaluated by means of a physical walk-through of the units to evaluate general maintenance (cleanliness) of the system. The facility engineer should be able to explain his use of outside makeup air in building operation. Adequacy of ventilation will be determined by analyzing carbon dioxide concentrations in ten fixed locations over the course of a day and by determining airflow, through use of a balometer, at the same ten fixed locations. The fixed sampling locations will include areas designated for smoking and/or smoking lounges. Temperature and humidity will also be measured.

2. Review of Building Smoking Policy

   The facility contact, the facility industrial hygienist (IH)/safety officer, and the Human Relations Manager will be questioned regarding the smoking policy for the facility. Smoking policies may include such policies as: "no smoking in the building," "smoking in designated areas only," "smoking in smoking lounges," and "unrestricted smoking." If smoking is allowed in

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designated areas or in smoking lounges, the locations of the designated areas/smoking lounges will be noted and ventilation rates will be determined in each of the areas.

3. Area Monitoring for Selected Constituents

Area monitoring for selected constituents will be conducted at ten different locations in each of the two buildings monitored. Monitoring locations will be agreed upon by the Eagle project manager and Shook, Hardy & Bacon's client contact. Samples will be collected during the hours when the buildings are occupied, approximately 8:00 a.m. to 5:00 p.m. This time period approximates the same eight-hour period during which personal samples are collected.

a. Carbon Dioxide, Carbon Monoxide

Monitoring for carbon dioxide (CO_2) and carbon monoxide (CO) will be conducted at ten fixed locations in each of the two buildings studied. This monitoring will be done using real-time monitors with datalogging capabilities to measure CO_2 and CO. The data will be downloaded to a printer or computer and a paper copy made of the monitored concentrations of CO_2 and CO.

b. Respirable Suspended Particulates

Monitoring for Respirable Suspended Particulates will be conducted using National Institute for Occupational Safety and Health (NIOSH) Method 0600. A total of ten fixed locations will be sampled to determine eight-hour time-weighted average (TWA) concentrations of Respirable Suspended Particulates (RSP) at these fixed locations. Analysis will be conducted by CTEK Laboratory, an American Industrial Hygiene Association (AIHA) accredited laboratory, in accordance with NIOSH Method 0600.

c. Nicotine

Monitoring for nicotine will be conducted using American Society for Testing and Materials (ASTM) Method D 5075-90. A total of ten

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fixed locations will be sampled to determine eight-hour TWA concentrations of nicotine at these fixed locations. Analysis will be conducted by American Medical Lab or Air Quality Sciences, both AIHA accredited laboratories, in accordance with ASTM Method D 5075-90.

4. Personal Monitoring for Nicotine and 3-Ethenyl Pyridine

a. Nicotine

Personal monitoring for nicotine will be conducted using ASTM Method D 5075-90. A total of twenty persons will be monitored to determine eight-hour TWA concentrations to nicotine. Analysis will be conducted by American Medical Laboratory or Air Quality Services, both AIHA accredited laboratories, in accordance with ASTM Method D 5075-90.

b. 3-Ethenyl Pyridine

At this time, neither a standard method nor a laboratory have been identified which can be used for the collection and analysis of 3-ethenyl pyridine. If sampling is conducted for 3-ethenyl pyridine, a total of twenty samples will be collected. Information on the collection and analysis of 3-ethenyl pyridine and associated costs will be supplied as it is obtained.

c. Volatile Organic Compounds

Volatile Organic Compounds (VOC) are typically associated with cleaning compounds and with off-gassing from building materials and/or furnishings.

If requested, Eagle will provide personal monitoring for VOC. NIOSH Method 1500 will be used to collect the VOC samples. Two side-by-side samples will be collected. Lancaster Laboratories, an AIHA accredited laboratory, will provide analysis of the VOC samples. The laboratory will be requested to analyze one of the side-by-side samples for total volatile organic compounds (TVOC). If the

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measured concentration is above a threshold concentration, to be determined by Shook, Hardy & Bacon with advice from Eagle, the companion side-by-side tube will be analyzed for specific compounds. The compounds which are analyzed in the scan include:

Acetone	Isooctane
Benzene	Isopropanol
Butanol	Isopropyl acetate
Butyl acetate	Methyl cellosolve
Carbon tetrachloride	Methyl ethyl ketone
Cellosole acetate	Methyl isobutyl ketone
Chlorobenzene	Methylene chloride
Chloroform	Octane
Cyclohexanone	Pentane
1,1-Dichloroethane	n-Propyl acetate
1,2-Dichloroethane	Propanol
Ethanol	Styrene
Ehtyl acetate	Tetrachloroethylene
Ethyl cellosolve	Toluene
Freon 113	1,1,1-Trichloroethane
Heptane	1,1,2-Trichloroethane
Hexane	Trichloroethylene
Isobutanol	Xylenes

Other components may be determined on the charcoal tube. There will be additional charges for the additional components.

5. Background Information

Eagle will collect general information on the size, operation and occupancy of each building:

- Address,
- Year Built,
- Year(s) remodeled,
- Brief physical description of building,
- Brief description of the HVAC system,
- Brief description of building use,
- Number of occupants,
- Estimated number of non-smokers, and
- Smoking Policy.

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6. Pilot Study Report

A report will be issued to Shook, Hardy & Bacon at the conclusion of the pilot study.

The report will describe the HVAC system for each building, discuss the smoking policy in effect in each building and will contain sampling and analysis methodologies and analytical results for each building. The report will also provide conclusions and recommendations for improving the sampling protocol to be followed during the ten-building investigation. A draft report will be issued within three weeks of obtaining all sampling results. After comments on the draft are returned to Eagle, a final report which incorporates the comments will be issued. The final report will be issued within two weeks of receipt of the comments. The information gathered in support of the smoking lounge study will not be addressed in the pilot study report but will be discussed in Phase III of this project.

B. TIMELINE

Eagle will provide a certified industrial hygienist (CIH) and an IH to conduct the monitoring. Field work is scheduled approximately one month from the project start-up to allow Eagle to take advantage of discount airfares. Field work is scheduled for two consecutive weeks, after which time a draft report will be submitted to Shook, Hardy & Bacon. After receiving comments on the draft, Eagle will finalize the pilot study report.

Phase I project authorization	Week 1
Scheduling and ordering equipment	Week 2
Discussions with facility engineer	Week 2
Mobilization	Week 5
Field work, Building 1	Week 6
Field work, Building 2	Week 7
Draft report*	Week 12
Comments returned to Eagle	Week 14
Final report	Week 16

* Estimated three-week turnaround from the laboratory.

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C. *PROJECT BUDGET*

It is proposed that the above-mentioned Phase I scope be performed on the basis of hourly charges for personnel plus direct expenses. It expected that the services outlined herein can be accomplished for the ESTIMATED PROBABLE COST. Only those costs incurred will be charged but they will not exceed the ESTIMATED PROBABLE COST client's prior approval. To avoid misunderstanding, it should be emphasized that the ESTIMATED PROBABLE COST is an estimated maximum, which we fully expect will cover the services herein described, but no guarantee is made or implied.

Professional Manpower (344 hours)	$25,750.
Administrative Support (73 hours)	$3,150.
Laboratory Expenses	$4,500.
Equipment Rental and Media Expenses	$15,800.
Travel Expenses	$8,925.
Shipping Expenses	$2,600.
Miscellaneous Expenses (computer, Federal Express, etc.)	$900.
Additional cost (equipment, media, laboratory analysis) if samples are collected and analyzed for TVOC	$4,500.
Additional cost if side-by-side samples are also analyzed for individual compounds via solvent scan	$3,450.

For budgeting purposes, it was assumed that:

1. All monitoring in the two buildings identified for the pilot study can be conducted during two consecutive weeks of 12-hour days, five days per week.

2. Airfares are estimated at $1,000 per trip for each of the two Eagle IH conducting the monitoring. This figure can be reduced if scheduling is completed in a timely manner and advance purchase tickets are obtained.

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3. Costs for collection and analysis of 3-ethenyl pyridine are not included in this proposal and would be considered a change of scope. Cost estimates will follow.

4. A total of ten area samples plus field blank for RSP, nicotine, CO and CO_2 will be collected; 20 personal samples plus field blank for nicotine will be collected.

5. Routine turnaround is requested for sample analysis.

5. Costs do not include collection and analysis of 3-ethenyl pyridine.

III. PHASE II - TEN-BUILDING INDOOR AIR QUALITY STUDY

A. TECHNICAL APPROACH

Phase II of the project involves determination of indoor air concentrations of constituents specific to tobacco smoke in ten office buildings with varying smoking policies. Work will be conducted Monday through Friday from 8:00 a.m. to 5:00 p.m., the period of building occupancy.

Ten buildings will be investigated during phase II of the project. Three scenarios are being considered for Phase II of the project. The work tasks associated with the three scenarios are alike except for the number of personal samples collected for selected constituents (see task D for more information). The investigations will include:

1. Review of Heating, Ventilation and Air-Conditioning System

   The HVAC system will be evaluated by means of a physical walk-through of the units to evaluate general maintenance (cleanliness) of the system. Adequacy of ventilation will be determined by analyzing carbon dioxide concentrations in ten fixed locations over the course of a day and by determining airflow, through use of a balometer, at the same ten fixed locations. The fixed sampling locations will include areas designated for smoking and/or smoking lounges.

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2. Review of Building Smoking Policy

The facility contact, the facility industrial hygienist/safety officer, and the Human Relations Manager will be questioned regarding the smoking policy for the facility. Smoking policies may include such policies as: "no smoking in the building," "smoking in designated areas only," "smoking in smoking lounges," and "unrestricted smoking." If smoking is allowed in designated areas or in smoking lounges, the locations of the designated areas/smoking lounges will be noted and ventilation rates will be determined in each of the areas.

3. Area Monitoring for Selected Constituents

Area monitoring for selected constituents will be conducted at ten different locations in each of the ten buildings monitored. Monitoring locations will be agreed upon by the Eagle project manager and Shook, Hardy & Bacon's client contact. Samples will be collected during the hours when the buildings are occupied, approximately 8:00 a.m. to 5:00 p.m. This time period approximates the same eight-hour period during which personal samples are collected.

a. Carbon Dioxide, Carbon Monoxide

Monitoring for CO_2 and CO will be conducted in ten fixed locations in each of the two buildings studied. This monitoring will be done using real-time monitors with datalogging capabilities to measure CO_2 and CO. The data will be downloaded to a printer or computer and a paper copy made of the monitored concentrations of CO_2 and CO.

b. Respirable Suspended Particulates

Monitoring for RSP will be conducted using NIOSH Method 0600. A total of ten fixed locations will be sampled to determine eight-hour TWA concentrations of RSP at these fixed locations. Analysis will be conducted by CTEK Laboratories, an AIHA accredited laboratory, in accordance with NIOSH Method 0600.

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c. Nicotine

Monitoring for nicotine will be conducted using ASTM Method D 5075-90. A total of ten fixed locations will be sampled to determine eight-hour TWA concentrations of nicotine at these fixed locations. Analysis will be conducted by American Medical Laboratory or Air Quality Sciences, both AIHA accredited laboratories, in accordance with ASTM Method D 5075-90.

4. Personal Monitoring for Nicotine and 3-Ethenyl Pyridine

a. Nicotine

Personal monitoring for nicotine will be conducted using ASTM Method D 5075-90. Depending upon the scenario selected, personal samples to determine eight-hour TWA exposure concentrations to nicotine will be collected as follows:

Scenario 1	20	samples
Scenario 2	50	samples
Scenario 3	100	samples

Analysis will be conducted by American Medical Laboratory or Air Quality Sciences, both AIHA accredited laboratories, in accordance with ASTM Method D 5075-90.

b. 3-Ethenyl Pyridine

At this time, neither a standard method or a laboratory have been identified which can be used for the collection and analysis of 3-ethenyl pyridine. If sampling for 3-ethenyl pyridine is conducted, the number of samples to be collected is expected to follow that for nicotine. Information on collection and analysis of 3-ethenyl pyridine and associated costs will be supplied as it is obtained.

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c. Volatile Organic Compounds

VOC are typically associated with cleaning compounds and with off-gassing from building materials and/or furnishings.

If requested, Eagle will provide personal monitoring for VOC. NIOSH Method 1500 will be used to collect VOC samples. Two side-by-side samples will be collected. Lancaster Laboratories, an AIHA accredited laboratory, will provide analysis of the VOC samples. The laboratory will be requested to analyze one of the side-by-side samples for TVOC. If the measured concentration is above a threshold concentration, to be determined by Shook, Hardy & Bacon with advice from Eagle, the companion side-by-side tube will be analyzed for specific compounds. The compounds which are analyzed in the scan include:

Acetone	Isooctane
Benzene	Isopropanol
Butanol	Isopropyl acetate
Butyl acetate	Methyl cellosolve
Carbon tetrachloride	Methyl ethyl ketone
Cellosole acetate	Methyl isobutyl ketone
Chlorobenzene	Methylene chloride
Chloroform	Octane
Cyclohexanone	Pentane
1,1-Dichloroethane	n-Propyl acetate
1,2-Dichloroethane	Propanol
Ethanol	Styrene
Ehtyl acetate	Tetrachloroethylene
Ethyl cellosolve	Toluene
Freon 113	1,1,1-Trichloroethane
Heptane	1,1,2-Trichloroethane
Hexane	Trichloroethylene
Isobutanol	Xylenes

Other components may be determined on the charcoal tube. There will be additional charges for the additional components.

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5. Background Information

Eagle will collect information on the size, operation and occupancy of each building, including the following:

- Address,
- Year Built,
- Year(s) remodeled,
- Brief physical description of building,
- Brief description of the HVAC system,
- Brief description of building use,
- Number of occupants,
- Estimated number of non-smokers, and
- Smoking Policy.

6. Report

A report will be issued to Shook, Hardy & Bacon at the conclusion of the ten-building study.

The report will describe the HVAC system for each building, discuss the smoking policy in effect in each building and will contain sampling and analysis methodologies and analytical results for each building. A draft report will be issued within three weeks of obtaining all sampling results. After comments on the draft report are returned to Eagle, a final report which incorporates those comments will be prepared. The final report will be issued within two weeks of receipt of comments. The information gathered in support of the smoking lounge study would not be addressed in the ten-building study report but would be discussed in Phase III of this project.

B. TIMELINE

Eagle will provide a CIH and an IH for all three scenarios. In addition, an industrial hygiene technician will be provided for Scenario 3. Each building will be evaluated over a one-week period with the exception of Scenario 3 during which each building will be evaluated over a two-week period. In Scenario 3, the major part of the work

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will be completed during the first week with the industrial hygiene technician returning during the second week to complete monitoring.

	Scenario 1	Scenario 2	Scenario 3
Project authorization	Week 1	Week 1	Week 1
Pilot Study	Weeks 2-16	Weeks 2-16	Weeks 2-16
Phase II:			
Scheduling and ordering equipment	Week 17	Week 17	Week 17
Discussions with facility engineer	Week 17	Week 17	Week 17
Mobilization	Week 20	Week 20	Week 20
Field work, Building 3	Week 21	Week 21	Weeks 21, 22
Field work, Building 4	Week 22	Week 22	Weeks 23, 24
Field work, Building 5	Week 24	Week 24	Weeks 25, 26
Field work, Building 6	Week 25	Week 25	Weeks 27, 28
Field work, Building 7	Week 27	Week 27	Weeks 29, 30
Field work, Building 8	Week 28	Week 28	Weeks 31, 32
Field work, Building 9	Week 30	Week 30	Weeks 33, 34
Field work, Building 10	Week 31	Week 31	Weeks 35, 36
Field work, Building 11	Week 33	Week 33	Weeks 37, 38
Field work, Building 12	Week 34	Week 34	Weeks 39, 40
Draft report*	Week 40	Week 40	Week 46
Comments returned to Eagle	Week 42	Week 42	Week 48
Final report	Week 44	Week 44	Week 50

* Estimated three-week turnaround from the laboratory.

Monitoring may be completed within a shorter time frame by assigning more people to the project; however, greater project management would be required and consistency in sampling could be sacrificed.

C. *BUDGET*

It is proposed that the above-outlined Phase II scope be performed on the basis of hourly charges for personnel plus direct expenses. It is expected that the services outlined herein can be accomplished for the ESTIMATED PROBABLE COST. Only those costs incurred will be charged, but they will not exceed the ESTIMATED PROBABLE COST without the Client's prior approval. To avoid misunderstanding, it should be emphasized that the ESTIMATED PROBABLE COST is an estimated maximum, which we fully expect will cover the services herein described, but no guarantee is made or implied.

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The project budget is presented several ways. Because Shook, Hardy & Bacon has not determined the number of samples which are to be collected during the full study, Eagle has presented costs for several different sampling scenarios, as requested.

Scenario 1: Collect ten area samples and 20 personal samples for selected constituents in each of the ten buildings identified for the study

Professional Manpower (1720 hours)	$128,750.
Administrative Support (365 hours)	$15,750.
Laboratory Expenses	$22,500.
Equipment Rental and Media Expenses	$79,000.
Travel Expenses	$44,625.
Shipping Expenses	$13,000.
Miscellaneous Expenses (computer, Federal Express, etc.)	$4,500.
Additional cost (equipment, media, laboratory analysis) if samples are collected and analyzed for TVOC	$22,500.
Additional cost if side-by-side samples are also analyzed for individual compounds via solvent scan	$17,250.

Assumes:

- Manpower needs of one CIH and one IH per building surveyed; 12-hour days, six days per week.
- Collection and analysis of ten area samples plus field blanks for RSP, nicotine, CO and CO_2; 20 samples plus two field blanks for nicotine per building for a total of 220 nicotine samples collected from the ten buildings.
- Airfare expenses of $2,000.00 per building surveyed. (Total expenses will vary from city to city according to hotel and meal costs. Actual costs can be reduced by prudent scheduling of this phase of the project.)
- Costs for collection and analysis of 3-ethenyl pyridine are not included in this proposal and would be considered a change of scope. Cost estimates will follow.

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Scenario 2: Collect ten area samples and 50 personal samples for selected constituents in each of the ten buildings identified for the study

Professional Manpower (2698 hours)	$196,600.
Administrative Support (370 hours)	$16,150.
Laboratory Expenses	$41,600.
Equipment Rental and Media Costs	$102,950.
Travel Expenses	$47,500.
Shipping Expenses	$13,000.
Miscellaneous Expenses (computer, Federal Express, etc)	$6,000.
Additional cost if samples are collected and analyzed for volatile organic compounds	$57,900.
Additional cost if side-by-side samples are also analyzed for individual compounds via solvent scan.	$85,800.

Assumes:

- Manpower needs of one CIH and one IH per building surveyed.
- Collection and analysis of 50 samples plus five field blanks per building for a total of 550 samples collected from the ten buildings.
- Airfare expenses of $2,000.00 per building surveyed. (Total expenses will vary from city to city according to hotel and meal costs. Actual costs can be reduced by prudent scheduling of this phase of the project.)
- Costs for collection and analysis of 3-ethenyl pyridine are not included in this proposal and would be considered a change of scope. Cost estimates will follow.

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Scenario 3: Collect ten area samples and 100 personal samples for selected constituents in each of the ten buildings identified for the study

Professional Manpower (4908 hours)	$314,850.
Administrative Support (460 hours)	$13,200.
Laboratory Expenses	$74,600.
Equipment & Media Expenses	$122,800.
Travel Expenses	$69,700.
Shipping Expenses	$13,000.
Miscellaneous Expenses (computer, Federal Express, etc.)	$8,250.
Additional cost if samples are collected and analyzed for volatile organic compounds	$115,750.
Additional costs if side-by-side compounds are also analyzed for specific compounds by solvent scan.	$211,200.

Assumes:

- Manpower needs of one CIH, IH, and one industrial technician per building surveyed; the CIH and IH on site for six 12-hour days; the technician on site for 12 12-hour days.
- Collection and analysis of 100 samples plus ten field blanks per building for a total of 1100 samples collected from ten buildings.
- Airfare expenses of $4,000.00 per building surveyed. (Total expenses will vary from city to city according to hotel and meal costs. Total costs can be reduced by prudent scheduling of this phase of the project.)

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IV. PHASE III - SMOKING LOUNGE STUDY

A. TECHNICAL APPROACH

Eagle is holding continuing discussions with HVAC engineers on this project. Although firms have indicated interest in this study, they are unwilling to provide a cost estimate at this time due to the unspecific nature of the study. Eagle has provided its thoughts on how the project would proceed.

Phase III of this project will proceed as follows. While conducting Phase I and Phase II of this project, Eagle will obtain construction drawings (mechanical, electrical, plumbing, architectural, structure) for each building. The Eagle project manager will spend a day reviewing the findings of Phases I and II with the selected HVAC firms and will provide them with construction drawings. The HVAC firms will be asked to prepare a bid, noting scope of work, project team and cost to design a smoking lounge for each building and to project operational and maintenance costs over a ten-year period. It is Eagle's estimate that this project will proceed as follows.

Each of the three locations to have a smoking lounge design will be visited by the HVAC engineer, who will take critical measurements. It is estimated that a maximum of two days are required on site for each design.

Upon return to Houston, the HVAC engineer will design a smoking lounge for each of the three buildings. It is estimated that a maximum of 40 hours of design will be required for each of three lounges.

Following the design, the construction costs will be estimated for each of the three lounges. It is estimated that the cost can be developed for each lounge in forty professional hours. Similarly, the utility costs will be estimated for each of three lounges in approximately 40 hours.

A report will summarize these findings. The Eagle project manager from Phases I and II will review each phase of the HVAC engineer's work to assure project consistency.

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It must be noted that the quoted costs are "best guesses" based on current project knowledge. The costs could vary upwards or downwards by at least 50%. After completion of Phases I and II, cost for this phase can be more accurately estimated.

B. TIMELINE

To be developed upon completion of Phases I and II.

C. BUDGET

The following costs are estimates only and could range substantially depending on the findings of Phases I and II of this project.

	Eagle	HVAC Contractor	
Professional Manpower (39 hours)	$4,260.	(408 hours)	$42,000.
Administrative Support (4 hours)	$175.		
Travel Expenses			$4,500.
Miscellaneous Expenses (computer, Federal Express, etc.)	$ 385.		$3,540.

V. PROJECT TEAM

Sharon M. D'Orsie, Ph.D., CIH, CSP, President of Eagle, will serve as Principal-in-Charge. Dr. D'Orsie has over twenty years experience in the technical aspects as well as the management of industrial hygiene and safety projects. She is an adjunct faculty member of the University of Texas School of Public Health, teaching in the graduate industrial hygiene curriculum.

As Principal-in-Charge, Dr. D'Orsie would be responsible for ensuring that manpower and equipment are available for conducting the study and would serve in a quality control function, reviewing and approving all reports or documents associated with this project.

Elizabeth A. Cunningham, CIH, CSP, will serve as project manager for this project. Ms. Cunningham has ten years experience in industrial hygiene and environmental engineering. She has Masters degrees in industrial hygiene from the University of Texas School of Public Health and from Rice University in Environmental

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Engineering. Ms. Cunningham is a member of the American Industrial Hygiene Committee (AIHA) on Indoor Environmental Quality and serves on its Regulatory Affairs subcommittee. She is also a member of the American Society of Heating, Refrigerating, and Air-conditioning Engineers (ASHRAE), and regularly attends the meetings of ASHRAE's Environment Committee.

Ms. Cunningham would be responsible for the overall direction of the project, including scheduling, selection of a laboratory, collection of samples, and the writing of the project report. She will assign duties to the industrial hygienist who will assist her with the project.

Additional CIH support will be provided by ***Jack Fontaine, CIH, CSP***. Mr. Fontaine has over thirty years experience in health and safety. Approximately twenty years were spent with the Occupational Safety and Health Administration (OSHA).

Depending on availability, ***Haskell Allen*** or ***Kathy Philips*** will serve as Industrial hygienist for this project. Both Mr. Allen and Ms. Philips received their Masters Degrees in Environmental Science/Industrial Hygiene from the University of Texas School of Public Health. Mr. Allen and Ms. Philips would assist Ms. Cunningham in collecting air samples during the studies and would assist in the preparation of the project report.

Eagle will use its industrial hygiene technicians to provide additional manpower should Scenario 3, 100 personal samples per building, be selected. Depending upon availability, one of the following three technicians may be used: ***Tracy Nichols, Danny Perry, or Alvin Townsend.*** All have conducted ambient and personal monitoring at numerous sites including Superfund sites, industrial sites and office buildings.

If additional manpower is required for this study because of future time constraints identified by Shook, Hardy & Bacon, it will be provided by industrial hygienists who staff the various regional offices of the ERM Group, Eagle's affiliate company. Specific project staffing, other than those persons from Eagle, cannot be determined until a schedule is developed for this project.

Professional profiles of the Eagle project team follow.

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VI. TERMS AND CONDITIONS

Other conditions of this proposal are attached and these "General Terms and Conditions" are hereby made a part of this proposal.

We appreciate the opportunity you have given us to submit this proposal. Should you have any questions, please contact me at 713-850-9990. We sincerely hope that we may have the opportunity of working with you on this exciting project.

Sincerely,

EAGLE ENVIRONMENTAL HEALTH, INC.

Sharon M. D'Orsie, Ph.D., CIH, CSP
President

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